



## 1ES 0033+595 found in a very high state by INTEGRAL

**Bassani, L.; Malizia, A.; Chenevez, J.; Fiocchi, M.; Bazzano, A.; Ubertini, P.; Natalucci, L.; Sguera, A.; Kuulkers, E.; Bird, A. J.**

*Publication date:*  
2014

*Document Version*  
Publisher's PDF, also known as Version of record

[Link back to DTU Orbit](#)

*Citation (APA):*  
Bassani, L., Malizia, A., Chenevez, J., Fiocchi, M., Bazzano, A., Ubertini, P., Natalucci, L., Sguera, A., Kuulkers, E., & Bird, A. J. (2014, Dec 4). 1ES 0033+595 found in a very high state by INTEGRAL. The Astronomer's Telegram No. ATel #6781 <http://www.astronomerstelegam.org/?read=6781>

---

### General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

[\[ Previous | Next \]](#)

## 1ES 0033+595 found in a very high state by INTEGRAL

ATel #6781; *L. Bassani, A. Malizia (INAF/IASF Bologna, Italy), J. Chenevez (DTU Space, Denmark), M. Fiocchi, A. Bazzano, P. Ubertini, L. Natalucci (INAF/IASF Roma, Italy), V. Sguera (INAF/IASF Bologna, Italy), E. Kuulkers (ESA/ESAC, Spain), A. J. Bird (Univ. of Southampton, UK) on behalf of the INTEGRAL/GPS team*  
on 4 Dec 2014; 14:15 UT

Credential Certification: Raffaella Landi ([landi@iasfbo.inaf.it](mailto:landi@iasfbo.inaf.it))

Subjects: X-ray, AGN, Blazar

[Tweet](#) 3

[Recommend](#) 1

During recent Galactic Plane Scan survey observations (GPS, PI: A. Bazzano) performed between Dec 2, 2014 (08:47 UTC) and Dec 3, 2014 (00:26 UTC), INTEGRAL detected 1ES 0033+595 with both JEM-X and IBIS/ISGRI instruments. 1ES 0033+595 is a blazar near the Galactic plane belonging to the BL Lac type; the source has recently been reported as one of the 50 or so blazars detected at TeV energies (Aleksic et al. 2014, <http://arxiv.org/abs/1410.7059v1>). 1ES 0033+595 was found in the combined JMX1+2 mosaic (effective exposure of 3.1 ksec, 3-10 keV band) with a flux of  $20 \pm 2$  mCrab ( $3.4 \times 10^{-10}$  erg/cm<sup>2</sup>/s) corresponding to a 10 sigma significance. It is also detected at higher energies ((in JEM-X2 only), with a flux of  $21 \pm 5$  mCrab (or  $2.5 \times 10^{-10}$  erg/cm<sup>2</sup>/s) at 4 sigma level (effective exposure of 1.2 ksec, 10-25 keV band). At even higher energies, IBIS/ISGRI found 1ES 0033+595 at a flux level of  $13.6 \pm 2$  mCrab ( $10^{-10}$  erg/cm<sup>2</sup>/s) in the 18-40 keV band (13 sec, about 7 sigma) while a 3 sigma upper limit of 11 mCrab ( $10^{-10}$  erg/cm<sup>2</sup>/s) is provided in the 40-100 keV band.

Using data collected from the ASDC SED Builder tool (<http://tools.asdc.asi.it/SED/>) we notice that this is the highest X-ray flux so far reported for this BL Lac object. The source is routinely monitored by various instruments including the Swift/XRT telescope: an observation performed on Nov 23 2014 gives a 2-10 keV flux around  $10^{-10}$  erg/cm<sup>2</sup>/s indicating that 1ES0033+595 has been in a high flux state for sometime now. Multiwaveband observations of the source are strongly encouraged.

[\[ Telegram Index \]](#)

R. E. Rutledge, Editor-in-Chief

[rrutledge@astronomerstelegam.org](mailto:rrutledge@astronomerstelegam.org)

Derek Fox, Editor

[dfox@astronomerstelegam.org](mailto:dfox@astronomerstelegam.org)

Mansi M. Kasliwal, Co-Editor

[mansi@astronomerstelegam.org](mailto:mansi@astronomerstelegam.org)